

AMENDMENT

UNMARKED VERSION

In the Claims:

Presented below are the claims, as amended, in a clean, unmarked format with changes entered and not marked. For the Examiner's convenience, all pending claims are presented herein. Claims that remain unchanged by this amendment are prefixed with "(Unchanged)."

Please amend claims 1 and 2 as follows.

Please add new claims 3 - 46.

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- 1 1. (Amended) A twin-engine jet aircraft configuration, comprising:
- 2 (a) an airframe having a centerline along its longitudinal axis;
- 3 (b) a first jet engine mounted within a plane vertical to the centerline;
- 4 (c) a second jet engine mounted within said plane vertical to the centerline;
- 5 (d) each of said first and second jet engines having a thrust adequate to takeoff,
- 6 climb, cruise and land the aircraft at full gross weight without use of the other jet
- 7 engine;
- 8 (e) one of said first and second jet engines having a maximum thrust greater than the
- 9 maximum thrust of the other of said first and second jet engines, said thrust
- 10 differential created by a different power setting on one of two otherwise equally
- 11 powered jet engines.
- 1 2. (Amended) A method of operating an aircraft comprising the steps of:
- 2 (a) providing a first jet engine having a thrust adequate to takeoff, climb, cruise, and
- 3 land the aircraft at full gross weight, and providing a second jet engine having a
- 4 thrust greater than the thrust of the first jet engine, each of the first and second jet
- 5 engines is a "main" engine;

- 6 (b) during take-off and climb, running the first jet engine and running the second jet
7 engine;
8 (c) during ordinary operational cruise, running one of the first and second jet engines
9 and reducing the power of the other jet engine while keeping it running.
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1 3. (New) The twin-engine jet aircraft configuration of claim 1, wherein a combined thrust
2 of said first jet engine and said second jet engine is substantially within the range of two
3 times to four times that of a single conventional twin aircraft engine.

1 4. (New) A jet aircraft configuration comprising:

- 2 (a) an airframe having a centerline along its longitudinal axis;
3 (b) a first jet engine mounted to the airframe and intersected by a plane vertical to the
centerline; and
4 (c) a second jet engine mounted to the airframe and intersected by the plane vertical
5 to the centerline, the second jet engine being substantially identical to the first jet
6 engine but having a lesser maximum thrust than the maximum thrust of the first
7 jet engine as a result of limiting the second jet engine's maximum thrust
8 capability.
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1 5. (New) The jet aircraft configuration of claim 4, wherein the second jet engine's
2 maximum thrust capability is limited by down-rating the second jet engine.

1 6. (New) The jet aircraft configuration of claim 4, wherein each of the first jet engine and
2 the second jet engine have a thrust adequate to takeoff, climb, cruise and land the jet
3 aircraft at full gross weight without use of the other jet engine.

1 7. (New) A jet aircraft configuration comprising:

- 2 (a) an airframe having a centerline along its longitudinal axis;
3 (b) a pair of equally powered jet engines mounted to the airframe and intersected by a
4 plane vertical to the centerline to produce centerline thrust; and

5 (c) a first jet engine of the pair of equally powered jet engines having a lesser
6 maximum thrust capability than the maximum thrust of the other jet engine of the
7 pair of equally powered jet engines as a result of limiting the first jet engine's
8 maximum thrust capability.

1 8. (New) The jet aircraft configuration of claim 7, wherein the first jet engine's maximum
2 thrust capability is limited by down-rating the first jet engine.

1 9. (New) The jet aircraft configuration of claim 7, wherein each of the first jet engine and
2 the second jet engine comprises a main jet engine.

1 10. (New) The jet aircraft configuration of claim 7, wherein the centerline thrust produced
2 by the pair of equally powered jet engines is symmetrical.

1 11. (New) A method of operating an aircraft comprising:

2 (a) providing a first jet engine and a second jet engine, the second jet engine having a
3 thrust lesser than the thrust of the first jet engine;

4 (b) running both of the first jet engine and the second jet engine during take-off and
5 climb; and

6 (c) creating a thrust differential between the first jet engine and the second jet engine
7 during one or more flight segments by continuing to run both of the first jet
8 engine and the second jet engine, but running one of the first jet engine or the
9 second jet engine at a reduced power.

1 12. (New) The method of claim 11, wherein one of the one or more flight segments
2 comprises ordinary operational cruise.

1 13. (New) The method of claim 12, wherein each of the first jet engine and the second jet
2 engine comprise a main jet engine, thereby each having a thrust adequate to takeoff,

3 climb, cruise and land the jet aircraft at full gross weight without use of the other jet
4 engine.

1 14. (New) A method of operating an aircraft comprising the steps of:

- 2 (a) a step for providing a first jet engine and a second jet engine, the second jet
3 engine having a thrust lesser than the thrust of the first jet engine;
4 (b) a step for running the first jet engine and the second jet engine during take-off and
5 climb; and
6 (c) a step for creating a thrust differential between the first jet engine and the second
7 jet engine during one or more flight segments.

1 15. (New) The method of claim 14, wherein the first jet engine comprises a main jet engine.

1 16. (New) The method of claim 15, wherein the second jet engine comprises a main jet
2 engine.

1 17. (New) A method of operating an aircraft comprising:

- 2 (a) providing a first jet engine and a second jet engine, the second jet engine having a
3 thrust lesser than the thrust of the first jet engine;
4 (b) running both of the first jet engine and the second jet engine during a first set of
5 one or more flight segments; and
6 (c) creating a thrust differential between the first jet engine and the second jet engine
7 during a second set of one or more flight segments by continuing to run both of
8 the first jet engine and the second jet engine, but running at least one of the first
9 jet engine and the second jet engine at a reduced power as compared to that
10 employed during the first set of one or more flight segments.

1 18. (New) The method of claim 17, wherein the first set of one or more flight segments
2 includes taxi.

1 19. (New) The method of claim 17, wherein the first set of one or more flight segments
2 includes takeoff.

1 20. (New) The method of claim 17, wherein the first set of one or more flight segments
2 includes climb.

1 21. (New) The method of claim 17, wherein the first set of one or more flight segments
2 includes ordinary operational cruise.

1 22. (New) The method of claim 17, wherein the first set of one or more flight segments
2 includes initial descent.

1 23. (New) The method of claim 17, wherein the first set of one or more flight segments
2 includes final descent.

1 24. (New) The method of claim 17, wherein the first set of one or more flight segments
2 includes landing.

1 25. (New) The method of claim 17, wherein the second set of one or more flight segments
2 includes taxi.

1 26. (New) The method of claim 17, wherein the second set of one or more flight segments
2 includes takeoff.

1 27. (New) The method of claim 17, wherein the second set of one or more flight segments
2 includes climb.

1 28. (New) The method of claim 17, wherein the second set of one or more flight segments
2 includes ordinary operational cruise.

1 29. (New) The method of claim 17, wherein the second set of one or more flight segments
2 includes initial descent.

30. (New) The method of claim 17, wherein the second set of one or more flight segments includes final descent.

31. (New) The method of claim 17, wherein the second set of one or more flight segments includes landing.

32. (New) The method of claim 17, further comprising staging one of the first jet engine or the second jet engine during one or more flight segments.

33. (New) The method of claim 17, wherein each of the first jet engine and the second jet engine comprises a main jet engine.

34. (New) A jet aircraft configuration comprising:

(a) an airframe;

(b) an engine means, including two or more jet engines mounted to the airframe, for producing centerline thrust; and

(c) a means for creating an engine thrust differential between the two or more jet engines during one or more flight segments in which the two or more jet engines all remain operating.

35. (New) The jet aircraft configuration of claim 34, wherein the means for creating an engine thrust differential comprises setting the two or more jet engines to run at different power settings.

36. (New) The jet aircraft configuration of claim 34, wherein the means for creating an engine thrust differential comprises limiting at least one of the two or more jet engines from its maximum thrust capability.

37. (New) The jet aircraft configuration of claim 36, wherein said limiting is accomplished by down-rating the at least one of the two or more jet engines.

38. (New) The jet aircraft configuration of claim 34, wherein one of the at least two jet engines has a maximum thrust greater than the maximum thrust of the other of the at least two jet engines.

39. (New) The jet aircraft configuration of claim 34, wherein the at least two jet engines have substantially the same maximum thrust capability.

40. (New) The jet aircraft configuration of claim 34, wherein a combined actual thrust of the at least two jet engines is substantially within the range of 1.6 times to 4 times that of a single conventional twin aircraft engine.

41. (New) The jet aircraft configuration of claim 40, wherein the combined effective thrust of the at least two jet engines is greater than or equal to that of the single conventional twin aircraft.

42. (New) A jet aircraft configuration comprising:

- (a) an airframe having a centerline along its longitudinal axis;
- (b) a first jet engine mounted to the airframe and intersected by a plane vertical to the centerline; and
- (c) a second jet engine mounted to the airframe and intersected by the plane vertical to the centerline, the second jet engine having a lesser or equal thrust capability than the first jet engine as a result of limiting the second jet engine's maximum thrust capability.

43. (New) The jet aircraft configuration of claim 42, wherein the second jet engine's maximum thrust capability is limited by down-rating the second jet engine.

44. (New) A jet aircraft configuration comprising:

- (a) an airframe having a centerline along its longitudinal axis;

- 3 (b) a pair of jet engines mounted to the airframe and intersected by a plane vertical to
4 the centerline to produce centerline thrust;
- 5 (c) each of the jet engines of the pair of jet engines being substantially identical but
6 have differing maximum thrust capabilities as a result of limiting the maximum
7 thrust capability of at least one of the jet engines of the pair of jet engines; and
8 (d) each of the jet engines of the pair of jet engines capable of responding to
9 independent thrust control during one or more flight segments.

1 45. (New) A twin-engine jet aircraft configuration comprising:

- 2 (a) an airframe having a centerline along its longitudinal axis;
3 (b) a first jet engine mounted to the airframe and intersected by a vertical line
4 orthogonal to the centerline;
5 (c) a second jet engine mounted to the air frame and intersected by the vertical line;
6 (d) one of said first and second jet engines having a maximum thrust greater than the
7 maximum thrust of the other of said first and second jet engines, said thrust
8 differential created by a different power setting on one of two otherwise equally
9 powered jet engines.

1 46. (New) A method of operating an aircraft comprising:

- 2 (a) providing a first jet engine and a second jet engine, the second jet engine having a
3 thrust greater than or equal to the thrust of the first jet engine;
4 (b) during take-off and climb, running both the first jet engine and the second jet
5 engine;
6 (c) during ordinary operational cruise, keeping both the first jet engine and the
7 second jet engine running and reducing the power of one of the first jet engine
8 and the second jet engine.